202

Worksheet Grade 9/10: Diversity

CURRO WINDHOEK GYMNASIUM PRIVATE SCHOOL
Teaching a new lifestyle – Building a better future
LOGOS PATHOS ETHOS

Biology Ordinary Level. **Chapter 3**. Topic 2.2 – **Diversity**

Name.....Gr..... Date: ..... February 2020

1. For each question there are **four** possible answers **A**, **B**, **C** and **D**. Choose the **one** you consider correct and record your choice in the box next to each question.

(a) A student was walking along a road when he saw an object under a tree.

When the student touched the object it changed colour, rolled over and divided into two.

Which characteristics of living organisms has the object shown?

A excretion, movement, nutrition
B growth, reproduction, sensitivity
C movement, reproduction, respira
D movement, reproduction, sensitivity

(b) Which type of living animal has a rough, dry, scaly skin?

A amphibian
B fish
C mammal
D reptile

(c) Which of the following lists contains only arthropods?

A annelids, insects, myriapods
B arachnids, crustaceans, myriap
C crustaceans, insects, molluscs
D insects, myriapods, molluscs

(d) What is the correct order of arthropod groups, from those with most legs to those with fewest legs?

A arachnids → crustaceans → insects → myriapods
B crustaceans → myriapods → insects → arachn

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C insects → arachnids → myriapods → crustaceans
D myriapods → crustaceans → arachnids → insects

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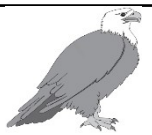
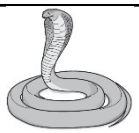
2. Table 2.1 shows six Namibian vertebrate animals that belong to the phylum Chordata. (Not drawn to scale)

Table 2.1

animal	visible diagnostic features	class
A		
B		
C 		
D	smooth moist skin	Amphibia
E 		
F		

Complete **Table 2.1** using only **visible** diagnostic features to identify the class of each animal. **D** has been done for you.
[10]

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3. Name the **four** classes of Arthropoda.

1 ……
……

2 ……
……

3 ……
……

4 ……
[4]

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4. Angiosperms (flowering plants) can be divided into two groups: monocotyledons and dicotyledons.

Complete **Table 4.1** to state the differences between these two groups of flowering plants.

Table 4.1

difference	monocotyledon	dicotyledons
pattern of veins on leaves		
number of cotyledons in seed	one	two
number of petals present		
type of root system present		
shape of leaves		

[5]

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5. Fig. 5.1 shows the structure of a typical virus.

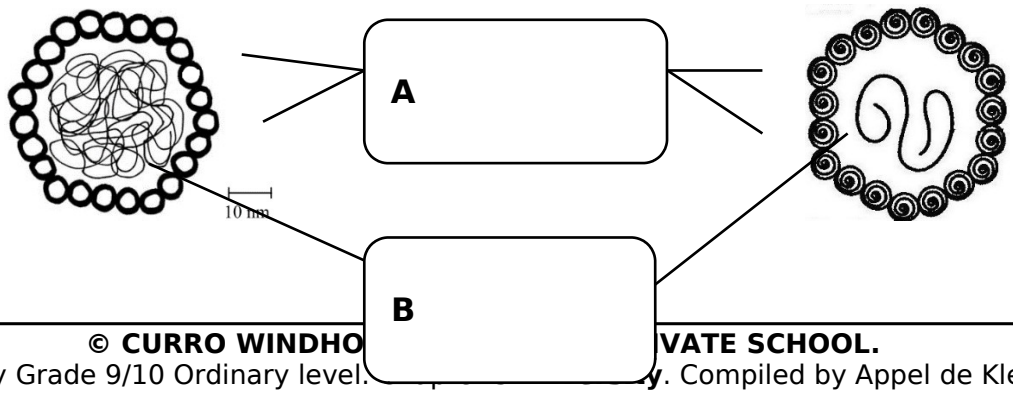

Fig. 4.1

(a) Name the parts of a virus labelled **A** and **B**.
[2]

(b) Describe the structure of a virus and indicate its approximate size.

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.

.....
[5]

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6. Distinguish between **bony fish** and **cartilaginous fish** by completing **Table 6.1**.

[6]

Table 6.1

feature	bony fish	cartilaginous fish
gills		
mouth opening	present at the anterior tip at the front of the body	ventral in position to the underside of the body
fins		

scales		
lateral line		

[8]

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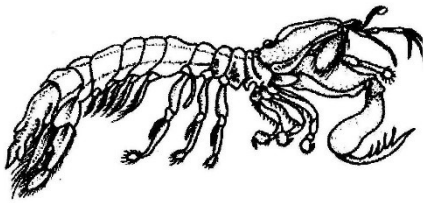
7. Fig. 7.1. shows an arthropod.



Outline the **three** visible diagnostic features of Arthropoda as shown in **Fig. 7.1**.

1 ……

2 …… **Fig.**

3 ……
[3]

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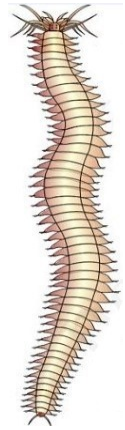
8. Describe the external diagnostic features of an annelid as shown in **Fig. 8.1**.



1

……

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2 .....

3 .....

4 ..... **[4]**

Fig. 8.1

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9. Fig. 9.1 shows three typical insects. List the main characteristics of Insecta (insects) visible in **Fig. 9.1**.

1 .....

2 .....

3 .....

4 .....

5 .....

Fig.

[5]

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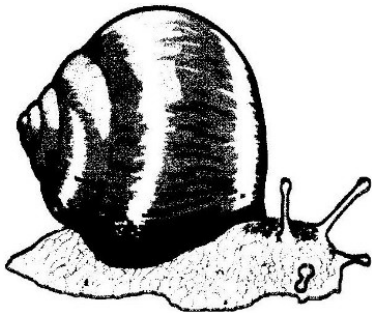
10. The land snail shown in **Fig. 10.1** is a mollusc. The snail belongs to the phylum known as Mollusca. State **five** diagnostic external features you would expect Mollusca to have.

Fig. **1**



.....

2 .....

3 .....

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4 .....

5 ..... **[5]**

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11. Fig. 11.1 shows some structural adaptations of the eagle that adapt them to the environment.

(a) Describe some structural adaptations, **visible** in **Fig. 11.1**, and outline how it helps the eagle to survive in its environment.

adaptations

.....

.....

.....

.....

..... **Fig.** .....

.....

.....

.....

[4]

(b) State **three** characteristics that birds, such as eagles, share with other members of the animal kingdom.

1

.....

2

.....

3 .....
[3]

(c) List the main diagnostic characteristics of birds (Class Aves) as shown in **Fig. 11.2**.

Fig. 11.2

1
.....

2
.....

3
.....

4
.....

5 .....
[3]

(d) State the **other four** classes of vertebrates.

1
.....

2
.....

3
.....

4 .....
[4]

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